

City of Willoughby Hills

(1) – New Never Used Model 2016 Heavy Duty Single Axle Dump Truck Chassis GVW Rating –41,000 lbs

1. Engine

- a. 6-cylinder diesel
 - 1. 300 HP @ 2100 gov. RPM- Min. 325 HP Peak @ 1500 – 1900 RPM
 - 2. Maximum Torque: 1200 lb/ft @ 1100 - 1300 RPM, 60% Torque Rise
 - 3. 659 cu. In. displacement (minimum)
 - 4. Lube oil system, Two full flow ESI spin on oil filters
 - 5. Extended service interval
 - 6. Centrifugal oil filter - Inverted
 - 7. Flywheel housing – Die Cast Aluminum
 - 8. Hand Primer Pump
 - 9. Silicone hoses and tubing on engine
 - 10. Air compressor, 18.7 cfm. Minimum Rating
 - 11. Crankshaft PTO – 1350 Series
 - 12. Oil Pan – Corrosion Resistant Oil Pan
 - 13. Engine brake
 - 14. Engine shall be positioned low in the chassis, providing a lower center of gravity
 - 15. Electrical pre-heater
 - 16. Davco 382 (Fluid HTD) Fuel Heater/Water Separator
 - 17. Fan drive, Borg Warner Cool Logic Fan Drive (HDMS) Variable Electronically Controlled
 - 18. Diesel Particulate Filter and SCR Burn Tank must be mounted RH side under cab

Comply or Exception_____

2. Starting System

- a. Starter, 12-volt – Gear Reduction
- b. Electronic starter interlock
- c. Batteries, (3) 12 volt, 1950 total CCA

- d. Alternator, 12V 160A, Delco (24 SI)

Comply or Exception_____

3. Air Intake System:

- a. Air Cleaner – Single element dry type with both hood side intake, inside/outside with in cab control for snow plows
- b. Air restriction monitor to be part of enhanced dash board electronic maintenance monitoring
- c. Diesel Particulate Filter Vertical – R.H. under cab
- d. Radiator mounted bug screen

Comply or Exception_____

4. Exhaust/Emissions -For use W/Clear Back of Cab Package

- a. Exhaust after treatment diesel particulate filter, ceramic catalyzed
 - 1. DPF, Cleartech HHF DPF RH Side under Cab W/SCR Frame MTD RH Side under cab.
 - 2. Battery Box LH Frame Rail, Air Tank(s) under Battery Box – Remaining between Frame rails.
 - 3. The engine shall be compliant and certified to meet the 2015 Federal EPA Emissions standards without using Federal EPA credits. The engine shall meet 2015 Federal Emissions standards using selective catalyst reduction.
 - 4. Exhaust after-treatment system-Exhaust after-treatment system diesel particulate filter ceramic passive regeneration
 - 5. DPF Smart Switch, No inhibit DPF Regeneration Switch
 - 6. Exhaust, Single stanchion or single cab MTD, single (R/S) vertical exhaust cab mounted, lower venturi diffuser, turned end.
 - 7. Single, Bright finish heat shield and stack
 - 8. Exhaust shall provide clear CA with no interference for body installation

Comply or Exception_____

5. Cooling System – Shutterless Type

- a. Radiator 900 sq. in. frontal area – minimum – aluminum core
 - 1. Anti-freeze to –34 degree Fahrenheit
 - 2. Fan drive, Borg Warner Cool Logic Electronically Controlled
 - 3. Hoses, heater and radiator, silicone
 - 4. Poly V Fan Belt w/Automatic Tensioner

5. Coolant Conditioner

Comply or Exception_____

6. Transmission:

a. Allison 3000-RDS-6 (3.49/0.65) Rugged Duty Series Gen 5 6-speed Automatic Transmission

1. Includes Transmission Oil Cooler, External oil Cooler, Internal Filter and Oil level sensor
2. Driveline - Main: Spicer SPL170XL “Extended Lube Series”
3. Allison Transmission Shift to neutral when Parking Brake Engaged.
4. Transynd Synthetic Lube for Allison Transmission

Comply or Exception_____

7. Cab: Interior

a. Custom trim level – Above base level

1. Coat hook
2. Cigar Lighter
3. Dispatch box
4. Overhead console including location for radio and in dash storage
5. Instrument cluster driver display with enhanced 4.5” diagonal graphic LCD display with 4 button stack control which includes routine maintenance monitoring of chassis
6. Visibility doors with passenger side peep window
7. Air conditioner, Heater & defroster
8. (4) Dome lights with self contained switch
9. Brake and accelerator pedal to be of “suspended” type
10. Adjustable Tilt / Telescopic steering column

b. Seats:

1. Driver’s Bostrom Talladega 915 (Hi-Back) Air Suspension
2. Arm rest, inboard mounted arm rest – drivers seat only
3. Rider’s seat non-suspension.
4. Diagonal grab handle on inside drivers door
5. Vinyl seat trim

- 6. Seat Belts – Driver’s and Rider’s - Lap & Shoulder with seat belt retractor
- c. Sun Visor, LH & RH
- d. Floor mats, polyurethane with closed cell vinyl nitrile backing
- e. Form fitting noise control firewall mats
shall be placed over the in cab dog house
- f. AM/FM premium stereo CD with Weather band, MP3, Weatherband, Handsfree interface, Bluetooth
- g. CB – 5-way binding posts

Comply or Exception_____

8. Operational:

- a. Wrap-around instrument panel, standard finish and driver & passenger side cup holders (HVAC Mtd). All dash controls are to be placed within easy reach of the driver.
 - 1. Air pressure gauge
 - 2. Voltmeter
 - 3. Fuel level gauge
 - 4. Engine oil pressure gauge
 - 5. Engine coolant temperature gauge
 - 6. Low air pressure indicator (light & buzzer)
 - 7. Speedometer/Trip odometer – electronic
 - 8. Tachometer/hour meter – electronic
 - 9. “Parking Brake On” indicator
- b. Provide (6) Assignable body builder dash switches (5 on-off, one momentary)
- c. 5 lb fire extinguisher between LH seat base and door with valve aimed rearward
- d. Emergency triangle kit parallel to inside surface of rider’s seat base
- e. Key type starting
- f. Engine shut-off, key type control
- g. Courtesy light switch (head & clearance) – in cab lighting shall consist of 4 overhead lamps

- h. Directional signal switch, manual canceling
- i. Electric window lift – RH & LH w/power door locks
- j. All Internal cab lights to turn blue when headlights are turned on for easier night time driving
- k. Power outlets – Two (2) additional 12 Volt
- l. Dash control power supply for local installation of plow lamps w/lead at grille

Comply or Exception_____

9. Cab/Hood: (exterior features) Welded steel shell, galvanized

- 1. Rust preventative procedures
- a. Vents, screened
 - 1. Fresh Air Inlet for heater
- b. Cab step, RH – Two Step frame mounted aluminum
- c. Safety glass windows
 - 1. 1-Piece - Heated / Tinted windshield, side and rear glass tinted
 - 2. Windshield wipers – two, fixed arm & blade
 - 3. Wiper motor (electric), (1) two speed, intermittent
 - 4. Windshield washers, electric, wiper mounted with 5 qt. Reservoir
- d. Mirrors, Heated West Coast, Bright Finish
 - 1. Heated west coast mirrors with chrome shell both RH & LH
 - 2. Convex mirrors bright finish LH & RH 8.0” Diameter Heated. Mounted below arm of west coast mirror.
 - 3. Driver’s view looking out the passenger side rear view
West Coast mirror shall not be blocked by the RH exhaust
- e. Headlights, halogen flush mounted with integral turn signal
 - 1. Identification & clearance lamps (5)
 - 2. Side markers – lamps & reflectors
 - 3. Front turn signals
 - 4. 4-way flashers

5. Daytime running lights
- f. Horns electric (single tone)
 1. Air, single trumpet with snow shield
- g. Doors – galvanized steel with peep window RH
 1. Aluminum grab handles, RH & LH behind door
 2. Diagonal Grab Handle on inside of driver's door
- h. Cab mounting: trunnion front, air suspended rear
- i. Hood and fenders, one piece molded fiberglass - camoplast
 1. Tilts forward 75 degrees minimum
 2. Stationary grill – Bright finish bars w/bright finish surround
 3. Grill – Hood air intake w/bright finish surround grill
 4. Hood insulation

Comply or Exception_____

10. Frame:

- a. Wheelbase: 174”
 1. Load platform: 148”
 2. Usable cab to axle: 84”, **Clear Frame**
 3. Axle to end of frame: 62”
- b. Frame rails – steel
 1. Cross section, 11.811” x 3.54” x .44”
 2. Section modulus – 23.50 [cu.in.](#) (minimum), single channel frame rail
 3. RBM 2,820,000 in. lb. Per rail (minimum), 120,000 PSI yield strength
 4. Cross members: Back of cab to rear axle; Heavy duty back to back channels, extended behind rear axle; Single channel type
 5. Bumper: Steel, swept back channel
 6. Towing hooks – Front
 7. The space between the frame rails needs to be 8.5 inches wider at the front of the frame at engine compartment than it is at the cab firewall.
8. Front Frame Extension - 20 inches – for snow plow mount (continued Parent Rail), with tilt, without inspection hatches.

Comply or Exception_____

11. Fuel Tanks:

- a. Aluminum 26” D-Shaped
 - 1. Capacity/location: 72 gallon LH W/Sleeved DEF Tank
 - b. Standard Finish Steps and Bright Finish Straps
- Comply or Exception**_____

12. Front Axle:

- a. 18,000 lb. Capacity – Forged I-Beam construction
 - b. Brakes, “S” Cam (16.5 x 6Q+) Cast Spider
 - 1. Meritor
 - 2. Haldex Automatic slack adjusters
 - 3. Dust shields
 - 4. Unitized wheel hubs – requires no maintenance – permanently sealed with grease
 - c. Sealed tapered kingpins and bearings
 - d. Suspension, Multi-Leaf Spring Heavy Duty
 - 1. 18,000 lb, ground load rating
 - 2. 32.5” spring centers
 - 3. Shock Absorbers
 - e. Steering, Sheppard SD110 power
 - 1. Wheel equipment, Aluminum disc – 22.5 x 9.0 Alcoa – Clean Buffed
 - 2. Hub Pilot – 10 Hole
 - 3. Front hubs, ferrous
- Comply or Exception**_____

13. Rear Axle:

- a. 23,000 lb. Capacity axle
 - 1. Carrier – RA23R Single Drive, Dual Reduction
 - 2. Ratio: 5.04
 - 3. Locking Main Differential, Driver Controlled
- b. 23,000 lb. Suspension – Rear, 23,000 lb. AL231 Air Ride Suspension
- c. Brakes -Meritor 16.5 x 7Q+ – cast outboard mounted
 - 1. Bendix Anti-Lock Brake System with Traction Control

2. Automatic slack adjusters – Haldex
3. Auxiliary spring brake chambers – Tamper resistant – MGM Model TR-T
4. 30/30 double diaphragm type
5. Mechanical spring release
6. Dust Shields
- d. Wheel equipment, Aluminum disc – 22.5 x 8.25
 1. (10 hole hub-piloted)(two hand-hole)
 2. Rim – 8.25” x 22.5”
 3. Clean Buffed

Comply or Exception_____

14. Tires:

- a. Front (singles), Size: 315/80R22.5 – 20 Ply, Tread: M-860, XZA2-Energy
Vendor: Michelin
- b. Rear (duals), Size: 11R22.5 – 16 ply, Tread: XDS2 (Traction)
Vendor: Michelin

Comply or Exception_____

15. Brakes:

- a. Anti-Lock System, Bendix with Traction Control
- b. Air dryer – Meritor/Wabco Heated, 1200 W/Coalescing Oil Filter
- c. Air Reservoir – Two, aluminum, standard finish
- d. Trailer Air Brake Connections, end of Frame
- e. Trailer Electrical Receptacle – Single 7 Pins Std, SAE Type, End of Frame

Comply or Exception_____

16. Electrical:

- a. Negative ground
- b. 12-volt electrical circuits & bulbs
- c. Circuit protection, all circuits breaker protected
- d. Battery Box Covers – Polished aluminum
- e. Battery shock pads
- f. Electrical connections, waterproof, sprayed with protective coating
- g. Cab floor pass thru hole / rubber boot
- h. Flaming River Big Switch Wired on Positive Side

- i. Truck to meet 2015 On Board Diagnostic Requirement

Comply or Exception_____

17. Paint:

- a. Cab, hood & fenders, Color: School Bus Yellow – high gloss with Cab urethane clear coat
- b. Chassis running gear, Color: Black – Urethane

Comply or Exception_____

18. Chassis

Wiring:

a. Body link electrical interface system for installation of dump body shall consist of a single HP2029 pin Deutsch connector, located under the cab body where it cannot interfere with body installation to provide a quick connection for commonly used bodybuilder electrical needs. The mating “female” connector must also be provided. A label must be provided that clearly identifies all electrical pinouts of all analog wiring. Multiplex wiring is not allowed.

b. The wiring shall have a polyester jacket for abrasion resistance that allows for quick and easy application and removal without disturbing connectors or fittings.

19. Base Warranty:

- a. Base warranty of chassis must be 12 months or 100,000 miles.
- b. Base warranty of engine must be 24 months or 250,000 miles.
- c. Base warranty of major engine components must be 60 months, 500,000 miles.
- d. Base warranty of DPF system must be 24 months, 250,000 miles
- e. Base warranty of DPF/SCR system components must be 60 months, 100,000 miles

20. Miscellaneous:

- a. Dealer to state warranty and any recommended optional extended warranties and cost of each on bid price sheet
 - b. Literature & Factory Computer Printouts
 - c. Dealer to furnish all available printed literature on chassis & individual drive train components with bid
 - d. Dealer to furnish computer analysis with bid, Indicating performance, operating range – MPH
 - e. Parts and Service, Must be available at bidders facility within a radius of 35 miles
- **Subject to approval of City of Willoughby Hills**

CITY OF WILLOUGHBY HILLS
HEAVY DUTY SINGLE AXLE CAB AND CHASSIS
BID QUESTIONNAIRE

The following bid proposal questionnaire is to be filled out in its entirety for proper bid evaluation. Failure to do so will cause your proposal to be rejected for lack of information: Literature must also be supplied with your bid proposal.

1. Make and model year of chassis _____
2. Chassis GVRW (by axle rating) _____
3. Chassis GVWR (by tire rating) _____
4. Chassis wheelbase dimension _____
5. Chassis cab to axle dimension _____
6. Will chassis have "Clear Frame?" _____
7. Will chassis have an integral front frame extension? _____
8. Engine make and model _____
9. Engine cubic inch displacement _____
10. Engine horsepower at 1500-1900 RMP at 2100 RPM _____
11. Engine output torque at RPM _____
12. Transmission make and model _____
13. Rear axle/differential make and model _____
14. Is rear axle/single or double reduction? _____
15. Is rear axle/differential rated for heavy-duty severe service? _____
16. Rear axle ratio _____
17. Rear axle rating _____
18. Front axle rating _____
19. Front tire manufacturer and size _____
20. Rear tire manufacturer and size _____

PROPOSAL PRICE PAGE

COST OF ONE SINGLE AXLE CAB AND CHASSIS \$_____

DELIVERY TIME OF ONE (1) SINGLE AXLE CAB AND CHASSIS

NUMBER OF DAYS AFTER RECEIPT OF ORDER _____

Please list and optional equipment and warranties including the additional cost of each option and warranty that would be incurred if City of Willoughby Hills so chooses to accept any or all of these additional options and warranties.

Name of
Company:_____

Address:_____

Sales Person's
Name_____

Phone No.:() _____ - _____

Authorized
Signature_____Dated_____

Sworn and subscribed before me this _____ day of _____, 2015.

SIGNATURE OF NOTARY PUBLIC

A Notary Public in and for _____ County, State of Ohio

My Commission
Expires_____

{SEAL}